

In the Claims:

Please cancel claims 1-12. Please amend claim 13. Please add new claims 19-24. The claims are as follows.

13. (Currently amended) A pitcher-shaped active area structure for a field effect transistor (FET) comprising:

a semiconductor substrate; and

at least two shallow trench insulator (STI) structures formed into the substrate that isolate the FET and define an active area structure, the active area structure comprising a widened top portion and a bottom portion, wherein the widened top portion has a larger width than the bottom portion.

14. (Original) The structure of claim 13 further comprising a pad oxide layer formed on the substrate, and wherein the at least two STI structures are formed into the substrate through the pad oxide layer, the at least two STI structures comprising an STI oxide liner and an STI oxide fill formed on the STI oxide liner.

15. (Original) The structure of claim 13, wherein the at least two STI structures comprise divots in top portions of side walls of the at least two STI structures into which the widened top portion of the active area structure extends.

16. (Original) The structure of claim 15, wherein the semiconductor substrate comprises silicon,

and wherein the widened top portion formed into divots comprises single crystalline silicon.

17. (Original) The structure of claim 15, wherein the divots comprise a depth of approximately 500 Å or less.

18. (Original) The structure of claim 13, wherein the widened top portion of the active area structure further comprises rounded top corners.

19. (New) The structure of claim 18, wherein the widened top portion of the active area structure includes a pad oxide layer that is in direct mechanical contact with the at least two STI structures.

20. (New) The structure of claim 19, further comprising a gate conductor layer on the pad oxide layer and on the at least two STI structures, wherein the gate conductor layer is in direct mechanical contact with the pad oxide layer and the at least two STI structures.

21. (New) The structure of claim 15, wherein the STI structures comprise insulation, wherein the divots define recesses below a top surface of the substrate and below a top surface of the insulation, and wherein the recesses have boundaries formed by the top portions of the side walls and by exterior surfaces of the insulation.

22. (New) The structure of claim 21, wherein the widened top portion of the active area structure further comprises rounded top corners.

23. (New) The structure of claim 22, wherein the widened top portion of the active area structure includes a pad oxide layer that is in direct mechanical contact with the at least two STI structures.

24. (New) The structure of claim 23, further comprising a gate conductor layer on the pad oxide layer and on the at least two STI structures, wherein the gate conductor layer is in direct mechanical contact with the pad oxide layer and the at least two STI structures.